- 2 -

CENTRAL FAX CENTER

Amendments to the Claims

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Please amend Claim 14. The Claim Listing below will replace all prior versions of the claims in the application:

Claim Listing

(Previously presented) A compound represented by the following structural formula: 1.

$$Z_1$$
 Z_2
 NR_1R_2
 R_3

or a pharmaceutically acceptable salt thereof, wherein:

Ring A is substituted or unsubstituted and is optionally fused to an aryl group;

 Z_1 and Z_2 are independently =0, =S, =N-OR₁₂ or =NR₁₂;

R₁ and R₂ are independently -H, an aliphatic group, a substituted aliphatic group, an unsubstituted non-aromatic heterocyclic group, a substituted non-aromatic heterocyclic group, an unsubstituted aryl group or a substituted anyl group, provided that R_1 and R_2 are not both -H; or -NR₁R₂, taken together, is a substituted or unsubstituted non-aromatic nitrogen-containing heterocyclic group or a substituted or unsubstituted nitrogen-containing heteroaryl group;

R₃ is a substituted or unsubstituted aryl group or a substituted or unsubstituted aliphatic group;

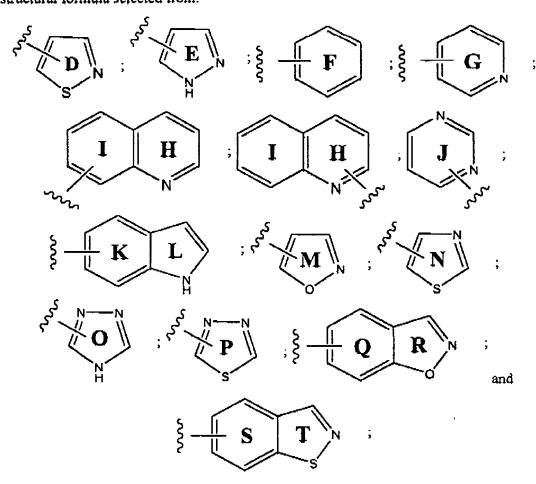
X is a covalent bond, $-C(R_4R_5)$ -, $-N(R_4)$ -, -O-, -S-, -S(O)-, $-S(O)_2$ -, -C(=O)-, $-C(=O)-N(R_4)-$, or $-N(R_4)-C(=O)-$,

- 3 -

R₄ and R₅ are independently -H or a substituted or unsubstituted aliphatic group; and

 R_{12} is -H or a substituted or unsubstituted alkyl group.

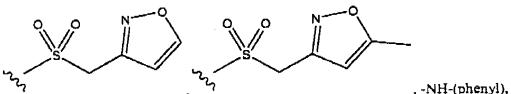
- 2. (Original) The compound of Claim 1 wherein: Ring A is substituted or unsubstituted; Z_1 and Z_2 are both =0; R_1 is -H; R_2 is a substituted or unsubstituted alkyl or aryl group; R_3 is a substituted or unsubstituted aryl group, and X is -C(R_4R_5)-, -N(R_4)- or -O-.
- 3. (Previously presented) The compound of Claim 2 wherein R₂ is represented by a structural formula selected from:



wherein Rings D-T are substituted or unsubstituted.

-4-

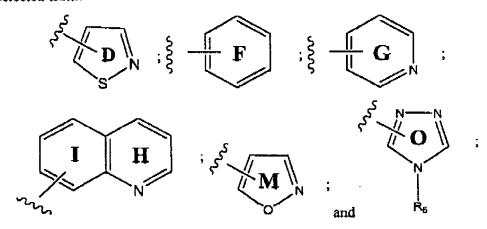
- (Previously presented) The compound of Claim 3 wherein zero, one or more ring carbons 4. atoms of Rings D-T are substituted a group independently selected from -OH, -Br, -Cl, -I, -F, -OR^a, -O-COR^a, -COR^a, -CN, -NO₂, -COOH, -SO₃H, -NH₂, -NHR^a, -N(R^aR^b), -COOR", -CHO, -CONH2, -CONHR4, -CON(R4Rb), -NHCOR4, -NRCOR4, -NHCONH2, -NHCONR⁴H, -NHCON(R⁴R^b), -NR⁴CONH₂, -NR⁴CONR⁸H, -NR⁴CON(R⁴R^b), $-C(=NH)-NH_2$, $-C(=NH)-NHR^a$, $-C(=NH)-N(R^aR^b)$, $-C(=NR^c)-NH_2$, $-C(=NR^c)-NHR^a$, $-C(=NR^c)-N(R^aR^b)$, $-NH-C(=NH)-NH_2$, $-NH-C(=NH)-NHR^4$, $-NH-C(=NH)-N(R^aR^b)$, $-NH-C(=NR^c)-NH_2$, $-NH-C(=NR^c)-NHR^a$, $-NH-C(=NR^c)-N(R^aR^b)$, $-NR^aH-C(=NH)-NH_2$, $-NR^{d}-C(=NH)-NHR^{a}$, $-NR^{d}-C(=NH)-N(R^{a}R^{b})$, $-NR^{d}-C(=NR^{c})-NH_{2}$, $-NR^{d}-C(=NR^{c})-NHR^{a}$, $-NR^{d}-C(=NR^{c})-N(R^{a}R^{b})$, $-NHNH_{2}$, $-NHNHR^{a}$, $-N(R^{a}R^{b})$, $-SO_2NH_2, -SO_2NHR^a, -SO_2N(R^aR^b), -CH=CHR^a, -CH=CR^aR^b, -CR^c=CR^aR^b,$ -CR°=CHR", -CR°=CR4R, -CCR4, -SH, -SR4, -S(O)R, -S(O)2R, alkyl groups, substituted alkyl group, non-aromatic heterocyclic group, substituted non-aromatic heterocyclic group, benzyl group, substituted benzyl group, aryl group or substituted aryl group wherein R4-Rd are each independently an alkyl group, substituted alkyl group, benzyl, substituted benzyl, aryl or substituted aryl group, or, -N(RaRb), taken together, can also form a substituted or unsubstituted non-aromatic heterocyclic group.
- Original) The compound of Claim 3 wherein zero one or more ring carbon atoms of Rings D-T are independently substituted with a group selected from C1-C4 alkyl, C1-C4 hydroxyalkyl, N-morpholino, pyrimidyl, C1-C4 alkyl substituted pyrimidyl, -N(C1-C4 alkyl)₂, -C(O)NH₂, -C(O)NH(C1-C4 alkyl), C(O)N(C1-C4 alkyl)₂, -NHC(O)(C1-C4 alkyl), -NO₂, C1-C4 alkoxy, -C(O)O-CH₂CH₂-N(C1-C4 alkyl)₂,



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-NH₂, -CH₂NH-C(O)-O-(C1-C4 alkyl), -CH₂NH₂, -Cl, -F, -C(O)-O-(C1-C4 alkyl), -C(O)-N-(C1-C4 alkyl), C3-C7 cycloalkyl, phenyl, -C(O)-N-morpholino, -S-(C1-C4 alkyl), -CN, furyl, -S(O)₂-(C1-C4 alkyl), -S(O)₂-NH₂, -S(O)₂-NH(C1-C4 alkyl) and -S(O)₂-N(C1-C4 alkyl)₂.

6. (Original) The compound of Claim 5 wherein R₂ is represented by a structural formula selected from:



and R6 is -H or a substituted or unsubstituted alkyl group.

7. (Original) The compound of Claim 5 wherein R₂ is represented by a structural formula selected from:

wherein:

-6-

 X_3 is -CH- or -N-,

R₇ and R₈ are independently -H or an alkyl group or -NR₇R₈, taken together, is a nitrogen-containing non-aromatic heterocyclic group;

R₉ is an alkyl group; and

R₁₀ is -H or an alkyl group.

- 8. (Original) The compound of Claim 7 wherein Ring A is optionally substituted with one or more groups selected from -F, -Cl, -Br, -Cl-C4 alkyl, Cl-C4 alkoxy, -Cl-C4 haloalkyl, Cl-C4 haloalkoxy, -NH₂ and -CN.
- 9. (Previously presented) The compound of Claim 8 wherein Ring A is unsubstituted; R₃ is a phenyl group or pyridyl group substituted with zero, one or more substituents selected from -Br, -Cl, -F, -R^e, -OR°, -CN, -COOR°, -N(R°)₂, -CON(R°)₂, -NR°COR^f, -NHCONH₂ and -SO₂ N(R°)₂; R₇ and R₈ are both -H and R₉ is methyl; and each R^e and R^f is independently -H, an alkyl group or a substituted alkyl group.
- 10. (Original) The compound of Claim 9 wherein R₃ is a phenyl ring substituted with zero one or more substituents selected from -Cl, -F, -R^e, -OR^e, -CN, -NH₂, -CONH₂ and -NHCOR^f
- 11. (Original) The compound of Claim 10 wherein R₃ is a phenyl ring substituted with zero one or more substituents selected from -CH₃, -CH₂CH₃, -OCH₃, -CN, -F and -Cl.
- 12. (Original) The compound of Claim 11 wherein R₃ is a phenyl ring that is unsubstituted or monosubstituted with -CH₂CH₃, -OCH₃, -CN, -F or -Cl and wherein the phenyl ring substituent is at the *para* position.
- 13. (Original) The compound of Claim 4 wherein R₂ is represented by the following structural formula:

-7-

14. (Currently amended) A method of treating a subject with <u>breast</u> cancer comprising administering to the subject an effective amount of a compound represented by the following structural formula:

$$Z_1$$
 Z_2
 NR_1R_2
 R_3

or a pharmaceutically acceptable salts thereof, wherein:

Ring A is substituted or unsubstituted and is optionally fused to an aryl group;

 Z_1 and Z_2 are independently =0, =S, =N-OR₁₂ or =NR₁₂.

R₁ and R₂ are independently -H, an aliphatic group, a substituted aliphatic group, an unsubstituted non-aromatic heterocyclic group, a substituted non-aromatic heterocyclic group, an unsubstituted aryl group or a substituted aryl group, provided that R₁ and R₂ are not both -H; or -NR₁R₂, taken together, is a substituted or unsubstituted non-aromatic nitrogen-containing heterocyclic group or a substituted or unsubstituted nitrogen-containing heteroaryl group;

R₃ is a substituted or unsubstituted aryl group or a substituted or unsubstituted aliphatic group;

X is a covalent bond, $-C(R_4R_5)$ -, $-N(R_4)$ -, -O-, -S-, -S(O)-, -S(O)₂-, -C(=O)-, -C(=O)-, $-N(R_4)$ -, or $-N(R_4)$ --C(=O)-;

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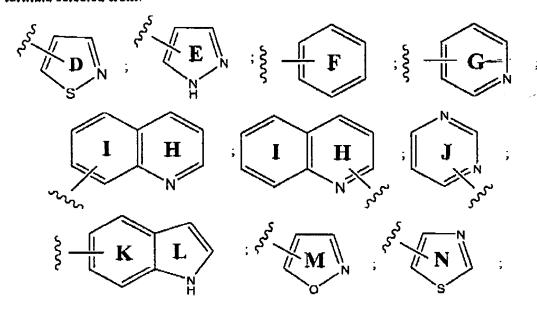
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-8-

 R_4 and R_5 are independently -H or a substituted or unsubstituted aliphatic group; and

R₁₂ is -H or a substituted or unsubstituted alkyl group, wherein the cancer is selected from the group consisting of breast cancer, colon cancer, loukemia, prestate cancer and uterine cancer.

- 15. (Previously presented) The method of Claim 14 wherein: Ring A substituted or unsubstituted, Z_1 and Z_2 are both =O; R_1 is -H; R_2 is a substituted or unsubstituted alkyl or aryl group; R_3 is a substituted or unsubstituted aryl group; and X is -C(R_4R_5)-, -N(R_4)- or -O-.
- 16. (Previously presented) The method of Claim 15 wherein R₂ is represented by a structural formula selected from:



-9-

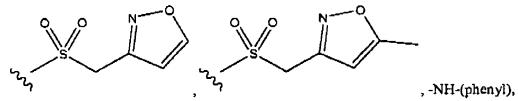
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wherein Rings D-T are substituted or unsubstituted.

- (Previously presented) The method of Claim 16 wherein zero, one or more ring carbons 17. atoms of Rings D-T are substituted with a group independently selected from -OH, -Br, -Cl, -I, -F, -OR", -O-COR", -COR", -CN, -NO2, -COOH, -SO3H, -NH2, -NHR4, -N(R*R*), -COOR^a, -CHO, -CONH₂, -CONHR^a, -CON(R^aR^b), -NHCOR^a, -NRCOR^a, -NHCONH₂, -NHCONR^aH, -NHCON(R^aR^b), -NR^cCONH₂, -NR^cCONR^aH, -NR^cCON(R^aR^b), $-C(=NH)-NH_2$, $-C(=NH)-NHR^a$, $-C(=NH)-N(R^aR^b)$, $-C(=NR^c)-NH_2$, $-C(=NR^c)-NHR^a$, $-C(=NR^c)-N(R^aR^b)$, $-NH-C(=NH)-NH_2$, $-NH-C(=NH)-NHR^a$, $-NH-C(=NH)-N(R^aR^b)$, $-NH-C(=NR^c)-NH_2$, $-NH-C(=NR^c)-NHR^d$, $-NH-C(=NR^c)-N(R^aR^b)$, $-NR^dH-C(=NH)-NH_2$, $-NR^{d}$ -C(=NH)-NHR^d, $-NR^{d}$ -C(=NH)-N(R^aR^b), $-NR^{d}$ -C(=NR^c)-NH₂, $-NR^{d}$ -C(=NR^c)-NHR^a, -NR^d-C(=NR^c)-N(R^aR^b), -NHNH₂, -NHNHR^a, -N(R^aR^b), $-SO_2NH_2, -SO_2NHR^4, -SO_2N(R^aR^b), -CH=CHR^a, -CH=CR^aR^b, -CR^c=CR^aR^b,$ -CR'=CHR^a, -CR'=CR^aR^b, -CCR^a, -SH, -SR^a, -S(O)R^a, -S(O)₂R^a, alkyl groups, substituted alkyl group, non-aromatic heterocyclic group, substituted non-aromatic heterocyclic group, benzyl group, substituted benzyl group, aryl group or substituted aryl group wherein Ra-Ra are each independently an alkyl group, substituted alkyl group, benzyl, substituted benzyl, aryl or substituted aryl group, or, -N(RaRb), taken together, can also form a substituted or unsubstituted non-aromatic heterocyclic group.
- 18. (Original) The method of Claim 16 wherein zero one or more ring carbon atoms of Rings **D-T** are independently substituted with a group selected from C1-C4 alkyl, C1-C4 hydroxyalkyl, N-morpholino, pyrimidyl, C1-C4 alkyl substituted pyrimidyl, -NH(C1-C4 alkyl), -N(C1-C4 alkyl)₂, -C(O)NH₂, -C(O)NH(C1-C4 alkyl), C(O)N(C1-C4 alkyl)₂,

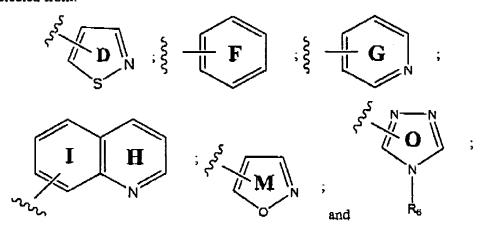
- 10 -

-NHC(O)(C1-C4 alkyl), -NO₂, C1-C4 alkoxy, -C(O)O-CH₂CH₂-NH(C1-C4 alkyl), -C(O)O-CH₂CH₂-N(C1-C4 alkyl)₂,



-NH₂, -CH₂NH-C(O)-O-(C1-C4 alkyl), -CH₂NH₂, -Cl, -F, -C(O)-O-(C1-C4 alkyl), -C(O)-NH-(C1-C4 alkyl), C3-C7 cycloalkyl, phenyl, -C(O)-N-morpholino, -S-(C1-C4 alkyl), -CN, furyl, -S(O)₂-(C1-C4 alkyl), -S(O)₂-NH₂, -S(O)₂-NH(C1-C4 alkyl) and-S(O)₂-N(C1-C4 alkyl)₂.

19 (Original) The method of Claim 18 wherein R₂ is represented by a structural formula selected from:



and Ro is -H or a substituted or unsubstituted alkyl group

20. (Original) The method of Claim 19 wherein R₂ is represented by a structural formula selected from:

-11-

wherein:

X₃ 1s -CH- or -N-;

R₇ and R₈ are independently -H or an alkyl group or -NR₇R₈, taken together, is a nitrogen-containing non-aromatic heterocyclic group;

Ro is an alkyl group; and

R₁₀ is -H or an alkyl group.

- 21. (Original) The method of Claim 20 wherein Ring A is optionally substituted with one or more groups selected from -F, -Cl, -Br, -Cl-C4 alkyl, Cl-C4 alkoxy, -Cl-C4 haloalkyl, Cl-C4 haloalkoxy, -NH₂ and -CN.
- 22. (Previously presented) The method of Claim 21 wherein Ring A is unsubstituted; R₃ is a phenyl group or pyridyl group substituted with one or more substituents selected from -Br, -Cl, -F, -R^c, -OR^c, -CN, -COOR^c, -N(R^c)₂, -CON(R^c)₂, -NR^eCOR^t, -NHCONH₂ or -SO₂N(R^c)₂; R₇ and R₈ are both -H and R₉ is methyl; and each R^c and R^t is independently -H, an alkyl group or a substituted alkyl group.
- 23. (Original) The method of Claim 22 wherein R₃ is a phenyl ring substituted with one or more substituents selected from -Cl, -F, -R^e, -OR^e, -CN, -NH₂, -CONH₂ and -NHCOR¹.
- 24. (Original) The method of Claim 23 wherein R₃ is a phenyl ring substituted with one or more substituents selected from -CH₃, -CH₂CH₃, -OCH₃, -CN, -F and -Cl.

- 12 -

- 25. (Original) The method of Claim 23 wherein R₃ is a phenyl ring monosubstituted with -CH₃, -CH₂CH₃, -OCH₃, -CN, -F and-Cl and wherein the phenyl ring substituent is at the para position.
- 26. (Original) The method of Claim 16 wherein R₂ is represented by the following structural formula:

